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ABSTRACT

Educators are now stressing that teaching students to be independent learners who learn to plan, structure and regulate their own learning activities, should be central to instruction. Studying word parts and origins has the potential for metacognitive instruction. Learning about the importance of context clues is also potentially metacognitive, in that it will teach students how to narrow down the meanings of unfamiliar words they come across in speech or print. A program, including six different games, was designed to devise formats through which students can learn strategies for expanding their vocabularies in a fun way. Each game employs one or both of the following strategies: learning word elements or origins, or learning about context clues. Students compete in teams so that their efforts are collaborative. They must discuss problems and employ strategies in small groups, leading to high levels of interaction and engagement independent of teacher influence. If played regularly, the games allow students to borrow strategies and knowledge from other games to help solve the problems in the new games, so that they may make discoveries appropriate to their level of development over the course of the year. (Four figures are included and 40 references are attached. Appendixes include a description of two vocabulary activities.) (MG)

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A Research-based, Fun and Engaging Program for Vocabulary Development

Paper presented at the Annual Spring Meeting of the National Council of Teachers of English, March 16, 1991, Indianapolis

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A Research-based, Fun and Engaging Program for Vocabulary Development

Theory and Research

Many teachers have probably practiced metacognitive instruction in our schools for some time, although educational psychologists have only recently identified it as a worthy and perhaps essential goal of teaching. Simply stated, metacognition refers to an awareness of the learning process, so that a learner can apply a learning principle to new situations, and solve new problems as they arise. Educators are now stressing that teaching our students to be independent learners who learn to plan, structure and regulate their own learning activities, should be central to our instruction; rather than simply providing our students with a body of information which we wish for them to master, we should teach them to learn to learn.

John Bransford (see Figure 1) has written that "learning to learn involves different sets of performance criteria from other conceptualizations of learning." Included in these different criteria are people's feelings about themselves as learners, and the need for them to feel more confident in the strategies they use to help clarify and solve problems; people's ability to monitor their own progress; and people's ability to apply knowledge to relevant situations. Many school courses, says Bransford, "are taught from the perspective of teachers imparting already known information .... [In such settings] we may not be explicitly told how concepts can be applied to particular situations and areas of knowledge. Effective learners may spontaneously think of potential applications on their own; others may fail to do so" (1979, p. 260). Furthermore, simply teaching a strategy that students mechanically apply to a task is not enough; students must learn their own potential for self-evaluation and correction, so that they can recognize when

they have not learned from their efforts and know how to reapply their efforts in order to be successful.

These findings are important to those responsible for vocabulary instruction with secondary school students. How can we teach vocabulary so that our students will go beyond the immediate set of words we are testing them on, and learn something about the acquisition of new words? How can we structure our vocabulary lessons so that students will learn how to determine the meanings of unfamiliar words, and know how to monitor their attempts to arrive at meaning so that they recognize failure and take appropriate new steps? A look at the most common methods of teaching vocabulary would be helpful in determining the extent to which standard methods teach students concepts and strategies which will help them learn not only the words at hand, but unfamiliar words which they will encounter later.

Petty, Herold and Stoll (1968), in conducting a major review of vocabulary research instruction, identified the following methods of teaching vocabulary in secondary schools (p. 17-19) (see Figure 2:

1. Direct methods, including (a) word lists, which assumes that students will learn the meaning and usage of words by studying them from lists, which is the oldest of the direct methods; (b) word parts, including Latin and Greek prefixes, suffixes, and roots, and English base words and common affixes; (c) other direct methods, such as workbooks, synonym study, and a systematic study of word origins.

2. Content methods, including (a) content clues, where students are directly instructed in how to determine meaning from context; (b) incidental learning, in which students pick up new words from their reading, without specific teacher attention; (c) other context methods, such as a study of

idioms, connotation, denotation, and word origins as the opportunity presents itself in the context of classroom activities.

Although their study of these methods took place in 1968, my experiences of teaching and observing in about thirty-five public high schools over the last fifteen years lead me to believe that their observations would describe vocabulary instruction of the 1990's quite accurately.

Which of these methods has the potential for metacognitive instruction? The study of word lists, which would appear from my own informal observations to be the most common method used in secondary schools, would not provide students any opportunities for metacognitive vocabulary study; rather, it would involve "cramming," and provide only short-term learning. Tyler (1949) reports that 50% of all memorized information is forgotten within one year of acquisition, and 80% is forgotten within two; unless students have regular formal requirements to use words learned in this way, they would most likely forget their meanings fairly soon. Furthermore, this method simply requires the product of a cognitive process, without teaching anything about the process of learning itself, and therefore could not be considered metacognitive.

Studying word parts and origins has the potential for metacognitive instruction. If students were to learn, for instance, a strategy for piecing together parts of a word to make an educated guess at the whole word's meaning, then they could use this process to determine the meanings of unfamiliar words containing the same elements that they would encounter independently.

Learning about the importance of context clues is also potentially metacognitive, in that it will teach students how to narrow down the meanings of unfamiliar words they come across in speech of print. Especially if this strategy is studied in concert with a study of word elements, students will have powerful tools to help them monitor their own learning by giving them

several strategies to help them check the success of their attempts to determine meaning.

Incidental learning is a benign approach that assumes that students will apply the strategies just identified, or use the dictionary to determine the meanings of unfamiliar words. Not only does this have no potential for metacognitive instruction, since it involves little if any teaching, but the authors dispute "the widely held notion that having students 'read, read, read' is a satisfactory method for teaching vocabulary" (p. 84).

The authors also find that motivation plays a great role in the acquisition of vocabulary, far more so than most researchers usually assume. "Students learn more if they are interested in what is being presented" (p. 21), they say, which may seem obvious to most of us, but is often ignored in the way vocabulary is taught and researched. The effective methods of vocabulary instruction which they cite involve attempts to make the instruction interesting (tracing Old English etymology, illustrating words with posters, studying words learned on field trips, studying words from favorite TV shows and ads, and using vocabulary games), so that students will want to learn the words.

Researchers since the 1968 review have studied more specific areas of vocabulary acquisition (see Figure 3). Mezynski (1983), described four positions regarding vocabulary instruction: (1) the aptitude position, which relies on native characteristics of the learner and not so much on instruction; (2) the access position, which advocates practice in word familiarity (i.e., drilling); (3) the instrumental position, which stresses systematic, long-term instruction in basic vocabulary concepts, often involving rote learning of definitions; and (4) the knowledge position, which asserts that knowing one word implies knowledge of a network of related words, and that we increase

vocabulary by adding words to existing word clusters. Mezynski found that systematic, long-term training in vocabulary in which students acquire words in clusters increases both word knowledge and reading comprehension. A learner can use such clusters as similes, as in a "thesaurus"-type approach or semantic relationships such as occupations, food types, shapes, types of actions, attitudes and so on.

Blachowicz (1985) found a number of instructional ideas to be highly effective in helping students build vocabulary. Retention of meaning depends on the "depth of processing"; that is, processing a stimulus in a complex manner such as by constructing a relationship, rather than in a simple manner such as by memorizing a word's meaning. Others have built on this theory to determine that vocabulary programs which take place in rich verbal environments that actively involve students in constructing word meanings are far superior to programs in which students simply memorize definitions.

Successful vocabulary programs emphasize the importance of how "usable" a new word is; that, is how helpful it is in understanding new words. The study of roots and affixes is a generative process, one which makes the words studied usable beyond the immediate context in which they are learned.

The length of a vocabulary program is also important, with several studies demonstrating that programs of long duration are advantageous because they give students time to repeat, practice and develop skills, and they allow students to encounter words in several contexts. This "decontextualization," or repeated exposure to words or word elements in contexts different from the one in which they are initially learned, is very important in allowing students to determine the meanings of words containing the elements when they see them in novel situations.

Stahl and Fairbanks (1986) conducted a meta-analysis of modes of vocabulary instruction and found that "mixed" methods (particularly context and definitional methods) produce significantly better achievement than one-faceted methods (Stahl, 1985). Their review also revealed that effective vocabulary programs require students to generate something original with the words that they learn. For instance, one study found that activities in which students produce novel responses to a word, such as an original sentence, involve more of the students' mental resources than simple memorizing strategies, because they are more active processes. Stahl and Fairbanks conclude that generative processing leads to the largest effects in vocabulary acquisition.

To review, then, an effective vocabulary program should include the following:

1. Systematic, long-term program
2. Rich verbal environment
   a. high interest and motivation
   b. high engagement and fun
3. "Deep" or "complex" processing
   a. Meaning construction
   b. Generative process
4. Mixed methods
   a. Networks or clusters
      1. Roots
      2. Affixes
      3. Other relationships
   b. Context clues
   c. Exposure in varying contexts

A separate line of research indicates that having students work in small groups is a boon to learning and maturing socially (see Figure 4). The group dynamics that result from the organization of the class into cooperative teams result in not only better learning, but a better social ambience. Slavin (1983) reports that when students are involved in team studies, high achievers help low achievers, while all members of a class gain an equal chance to contribute to their team's success. He found further that with a team game format, students are able to explain and listen well, and work together while taking responsibility for one another's learning.

Slavin's review of forty-one experimental studies reveals that cooperative learning teams result in better learning than programs in which students learn alone. Two conditions which amplify this effect are: (1) when learning is subsequently assessed individually; and (2) when each group is rewarded for its members' collective performance. Thus, while team results are important, each individual must be responsible for mastering the learning objectives of the group. As a result, a weak student can not just coast by and collect the laurels earned by the stronger students in the group. Rather, because each student will ultimately be held accountable, they must all involve themselves in the group project so as to learn whatever substantive or procedural knowledge their task requires of them.

Other studies report that social benefits emerge from learning groups as well as academic ones. Rather than competing for a few top grades, students work together in a supportive fashion. Minority students learn particularly well in cooperative groups. Not only is their learning improved, but many studies indicate that students in racially mixed groups make friends from different races, thus improving racial attitudes. Students involved in

learning groups are also more likely to name mentally retarded or learning disabled students as their friends.

The interactions of students in small groups improves learning due to the amount of explaining that takes place. Several studies suggest that students who give a lot of explanations learn more than those who say nothing, and that students who receive explanations learn somewhat more than those who remain silent. Those who receive neither answers nor explanations learn very little. Students who must explain their reasons for believing something, then, not only impart knowledge but themselves learn in the process.

The authors of "Cooperative Learning" conclude that "Well-planned learning teams allow low achievers to contribute and feel successful. They challenge bright students to deepen their understanding of an idea by explaining it to others. Groups multiply the sources of help within the classroom .... They set the stage for discussions that encourage real thinking. They demand the cooperative skills required by adult life, which schools often neglect" (p. 6). The small group format, then, in which teams of students cooperate to improve both their academic and social skills, works well to make vocabulary study an enjoyable and enlightening experience. When an individual examination follows each game, students are responsible for the substantive and procedural knowledge they have practiced using, and therefore will benefit from the experience whether they are an academic leader or are aided by the contributions of more capable students.

The activities I'm about to demonstrate are an attempt to devise formats through which students can learn strategies for expanding their vocabularies in a fun way. Each of the following games employs one or both of the following strategies: learning word elements or origins, or learning about context clues. Students compete in teams of 3-5 students, so that their efforts are

collaborative. Students must discuss problems and employ strategies in small groups, leading to high levels of interaction and engagement independent of teacher influence. The competitive game format makes interest and motivation high. If played regularly, the games allow students to borrow strategies and knowledge from other games to help solve the problems in the new games, so that they may make discoveries appropriate to their level of development over the course of the year.

One point that teachers and students must keep in mind is that the purpose of these activities is not merely to learn the specific words in the games. Some students might complain that they will never use words like "ichthyophagous" or "tachygraphy" (I, for instance, have read for several hours a day for the last few decades, and have never seen either in print), and that therefore the games are not effective tools for building vocabulary. Such complaints, however, miss the point. These games teach students to learn the meanings of the parts of the word, and their relationships, so that they can make reasonable guesses at the meanings of subsequently encountered unfamiliar words. For instance, if the study of a word like "gynarchy" has led students to identify its components as "gyn," meaning "woman," and "archy," meaning "government by ....," then they should more easily be able to figure out and remember the meanings of words like "androgynous" and "oligarchy," especially when they encounter them in a context that will yield additional clues to their meaning.

Although I have no formal research to back it up, my experiences have also told me that the highly charged and fun atmosphere created by these competitions creates a deep impression which helps students remember the meanings of word elements. Furthermore, in that many of the game words are

somewhat bizarre (hippopotomonstrosespuipedalian, tolypeutine) they often stand out in students' minds.

The processes of these games should further help promote metacognition due to the affect they have on students. Bransford's "different criteria" include people's feelings about themselves as learners, their ability to monitor their own progress, and their ability to apply knowledge to relevant situations; these games fulfill all of these criteria. Students who feel secure about the strategies that they bring to comprehension tasks will, says Bransford, be better learners, and feel less anxious and intimidated when tackling new problems because the strategies will allow them to check their own understanding and apply alternative solutions should their comprehension attempts fail. Thus, they will be more likely to succeed in their individual problem-solving attempts, due to their confidence in a variety of comprehension strategies.

How to Use these Activities

This program consists of six different games. I would recommend playing one every other week (Fridays are good for this) in the sequence I've outlined. For a normal school year, you could therefore play each game about three times. On the Friday following a game, you should give the students a vocabulary test. The test words, however, should not come from the games themselves, but should be based on some element or strategy learned in the game. I have provided, at the back of the book, a lengthy list of Test Words, grouped in alphabetical lists of roots and affixes, that you can use for the exams.

Following a game of "Root It Out," for instance, where students work from a sheet providing them with roots, prefixes and suffixes, a teacher could give a test on words which employ these same word elements, yet which are not

included in the game. Since the game words tend to be somewhat esoteric, you may wish to select test words which use the same principles, yet which students are more likely to encounter and use. For instance, the Prefix list includes "pan," meaning "across or complete," and "phobia," meaning "fear of ...."; and among the game words are "pantophobia," "pteronophobia," "panacea," "panoptic," and "mellssophobia." Following this game, you may provide students with ten words from the Test Word lists that they will be tested on, and include among them a word such as "pantheon," "pandemic," "logophobia," or "hemophobia." Even if a word on the test is not one which they are likely to use, the point is that they are remembering it through a word element, or by using it in context, and that this will affect their subsequent ability to acquire new words.

I have found it a good idea to require students to provide both a definition and context sentence for each word, to reinforce the importance of studying context. The more frequently you can reinforce the skills you are trying to have students develop, the better the students will learn them.

One fun way to enliven the vocabulary test is to add, at the end of the test, a "Bonus" vocabulary word (Smagorinsky and Slaby, 1986). This would be some bizarre word of the sort listed in Mrs. Byrne's Dictionary or The Superior Person's Book of Words, an often archaic and polysyllabic word with a peculiar definition. For instance, following a test in which one of the words has as its prefix "mis" (hatred of ....), you might give "misodictakleidist" as that week's Bonus word. The students would make a guess at its meaning, and put it in a context sentence, and write both of these at the end of their exams. You would then collect the exams and read all of the attempts aloud to the class, and then, at last, tell the students the word's real meaning (in this case, "a person who hates to practice the piano"). This is a fun way to end the weekly

quiz, and help give students a positive attitude towards word play. I have provided a list of Bonus Words at the end of the book.

You might figure out some system of awards for getting Bonus word definitions right. I give a student 10 points on the quiz for the first correct Bonus word, an A for the test if he or she gets a second one right, an A for all tests through the end of the semester for a third correct answer, and an all-expenses-paid vacation for two to Hoboken, New Jersey, for a fourth correct answer. Students who get a fifth Bonus Word right earn a barge ride down the Paterson River during their stay in Hoboken. This might seem like a generous compensation, but how many high school students will correctly guess the meanings of misodoctakleidist, metagrobolized, synotikolobomassophile, gephyrophobia, and leptorrhinian in one semester? The Bonus Word, you'll find, adds a lot of fun to an activity which students otherwise might find routine.

At the end of the book are three lists. As noted, one is a list from which you can select exam words. They are arranged alphabetically by word element, allowing you the flexibility to pick whichever words you wish for testing, depending on the words you've used in that week's game. If, for instance, you have played "Strategy," and have used "lucubration," "palingenesis," "verisimilitude," and "substaquilate" among your game words, you could go to the end and look under the word element headings for "loqu, luc" (speak), "gen" (birth), "ver" (true), and "sub" (under) and select "elocution," "genocide," "veracity," and "subterfuge" for some of that week's test words. It is important that you do not tell the students the words' definitions, but require them instead to determine their meanings on their own, so that they must actively use the knowledge they have gained from the games.

The second list is made up of prefixes, roots and suffixes which are not used in any of the games in this book. This is intended as a reference for

those teachers who want to make up their own exercises for these games, or want to make up their own games using different word elements.

The final list is, as mentioned, some possible Bonus Words. At the very least, the words that you find on these three lists, and in the games themselves, will allow you and your students to impress people at parties and do well on the remote sections of the SAT. You should find the program outlined in this book to be a fun and highly effective means of vocabulary instruction; and, at the end of it all, you may find that you have cultivated among your students quite a number of logophiles.

Figure 1

Metacognition: Thinking about thinking

Basic principle: "Learn to Learn"

Features of metacognition

1. Learners structure and regulate their own learning
2. Learners feel confident in their problem-solving strategies
3. Learners monitor their own progress, recognize and remediate unsuccessful efforts
4. Learners use conditional knowledge: knowledge of when to apply appropriate strategies

John Bransford (1979). Human Cognition. Belmont, CA: Wadsworth

Figure 2

Common Methods of Teaching Vocabulary

1. Direct Methods
   a. Word lists
      1. Memorizing lists
      2. Oldest and probably most common method
   b. Word Parts
      1. Roots and Affixes
   c. Other Direct Methods
      1. Workbooks
      2. Synonym Study
      3. Etymology
2. Context Methods
   a. Context Clues
   b. Incidental Learning
   c. Other Context Methods
      1. Idioms
      2. Connotation/Denotation
      3. Word Origins

Petty, W. T., Herold, C. P. and Stoll, E. (1968). The State of Knowledge about the Teaching of Vocabulary. Urbana, IL: NCTE

Figure 3

RECENT RESEARCH

I. Mezynski, K. (1983). Issues concerning the acquisition of knowledge: Effects of vocabulary training on reading comprehension. Review of Educational Research, 53(2), 273-9.

1. Aptitude: Related to learner, not instruction
2. Access: Drilling
3. Instrumental: Rote Learning
4. Knowledge: Networks

II. Blachowicz, C. (1985). Vocabulary development and reading: From research to instruction. Reading Teacher, May.

1. Complex Processing
2. Rich verbal environment (meaning construction)
3. Emphasize how "usable" a word is
4. Long-term program
5. Decontextualization

III. Stahl, S. and Fairbanks, M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. Review of Educational Research, 56(1), 72-110.

1. Mixed Methods
2. Generative Process

Figure 4

RESEARCH ON SMALL GROUPS

1. High achievers help low achievers
2. Cooperation: Take responsibility for one another's learning
3. Conditions for success:

a. Assess learning individually

b. Reward group for collective performance

4. Appreciation of individual differences

5. Explainers and explainees benefit

6. Increase confidence and success

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Appendix

1. STRATEGY

This activity allows students to use a combination of two comprehension strategies (context clues and knowledge of roots, prefixes and suffixes) to figure out the meanings of unfamiliar words. The competitive nature of the activity creates an excellent environment in which students can both employ effective comprehension strategies and have fun with their language. The collaborative nature of the activity (students compete in small teams) promotes interaction and helps students develop critical and inferential faculties.

Procedures: The students form five evenly sized teams. The teams have a choice of categories to choose from on each of their turns. In this activity, the choices come from one of three categories, each of a different degree of difficulty. In Round 1, Category #1 is worth 10 points; Category #2 is worth 20; and Category #3 is worth 30. The point values reflect the words' relative degree of difficulty.

Prior to the game, the teacher distributes lists of common prefixes, roots and suffixes to each team. The students use these to help figure out the meanings of the words used in the competition. The action proceeds as follows: The first team to go may choose any one of the three categories for its question. When it makes its choice, the teacher reads a sentence from that category and writes the underlined word on the board. The students on that team are given 60 seconds in which to make a guess at the meaning of the designated word. A correct response gives that team the appropriate number of points; an incorrect response results in no penalty. Say, for example, that Team #1 goes first, and elects to try a Category #2 word. The teacher reads a sentence from the Category #2 list, "Tom's ambulophobia led him to own several cars," and writes the word on the board. The students have 60 seconds in which to study their lists, look at the context of the word, and make a guess as to

its meaning. Here, they will find "phobia" (the fear of ....) on the suffix list. They then combine this knowledge with an examination of ambulophobia's context, plus a possible familiarity with words like "ambulation" to make a guess at the word's meaning. If they correctly guess "fear of walking," they receive 20 points; if their guess is wrong, they receive zero points.

If the team guesses wrong, all other teams may then have an opportunity to make a guess at the word's meaning. This encourages all teams to try to figure out all of the words in the game. They should be working on the word's definition while the primary team is working on it. If the primary team guesses wrong, any other team may submit a guess on a piece of paper. The other teams should have their guess ready when the primary team makes its guess, to save time. Teams making a correct guess receive the point value for the word. However, if a team guesses wrong in this segment of the activity, it is penalized the point value of the word. Thus, "second-guessers" do so at a risk.

The next team then goes through the same process. Round 1 is over after each team has taken a turn. (You may wish to adapt the number of turns each team takes to the length of your own class periods.)

The teams then play Round 2. The action in this round proceeds in the same fashion as Round 1, but the point values are doubled.

The activity concludes with The Challenge Round. In this round, each team may gamble any portion of its total points, betting on whether they can get the correct answer for the round's vocabulary word. They do this in secret, and inform the teacher of the amount of their bet before receiving the Challenge Round vocabulary word. The teacher will inform all teams of all wagers after the definitions have been submitted.

All teams receive the same word and sentence, taken from the Challenge Round word and sentence list. An example of how the Challenge Round might go

is:

The totals for all teams following Round 2 might be:

Team #1	Team #2	Team #3	Team #4	Team #5
50	0	100	-70	60

Teams with negative point totals or zero points do not compete in the Challenge Round. Before the Challenge Round begins, each competing team must write down in secret the amount of its total points it wishes to bet. Team #1, for instance, has 50 points, and is 50 points behind the leader, Team #3. They might wish to bet all of their points. Team #5, on the other hand, might be more conservative, betting only 41 points and hoping that Team #3's answer is wrong. Team #2, with zero points, and Team #4, which has achieved a negative point value through poor second-guessing, are ineligible to play the Challenge Round. Team #3 might bet 30 points, figuring that a correct guess will win the competition regardless of what the other teams do. The teacher may wish to structure the rewards so that the first and second place teams receive points to prevent an all or nothing mentality; this would discourage every team from betting all of its points.

When each team has determined and submitted its wager, the teacher is ready to give the Challenge Round word and sentence. The teacher might say, for example, "In its ideal state, marriage is a <u>biunial</u> relationship," writing "biunial" on the board. All teams get two minutes to arrive at their guesses and submit them. When all guesses are in, the teacher reveals first the number of points each team has gambled, and then the definitions they have determined for the word. When all are done, the teacher gives the correct definition (in this case, "combining two into one"), the final scores are tallied, and the winners are rewarded. To promote a positive attitude towards the activity and vocabulary study, members of the winning team could receive an A, with other

students receiving no penalty. In case of a tie, the two teams could each have another try at another word from the Challenge Round list.

PREFIXES

anti: opposite, against

auto: self

bi: two

circum: around

eu: well, good

im: not

mal: bad

mono: one

neo: new, recent

oxy: extreme

pachy: thick

pal: again

per: through, by

post: after

sol: alone

sub: under

tachy: fast

trans: across, change, transfer

xantho: yellow

xeno: foreign

xylo: wood

ROOTS

andro: man

arach: pertaining to peanuts

Bacchus: Greek god of wine

biblio: pertaining to books

chron: time

corps: body

cre: believe

culpa: fault

gyn: woman

hirsut: hair

lact: milk

luc, loq: speech

mast: teeth

mort: death

nomen: name

oct: eight

pecc: sin

plac: to please

pugn: tending to fight

pyro: fire or heat

quin: five

rap: seize

salu: health

ver: truth

vir: masculine

SUFFIXES

ine: resembling a certain animal

phobia: fear of ....

CATEGORY 1

Brave Odysseus slew the monocular beast. (having one eye)

The defendant was exculpated from the charges against him. (cleared of guilt)

The pugnacious lady had trouble making friends. (tending to fight)

Mary has been implacable since the death of her pet frog. (impossible to please)

My great great great grandmother, though no longer corporeal, is still alive in spirit. (tangible, substantial, relating to a physical material body)

I got many scratches walking across the field due to the abundance of oxycanthous plants. (having very sharp thorns or spines)

I hit the pachydermatous animal with a baseball bat, and he didn't even feel it. (thick skinned)

Bill's xylophobia caused him to quit the Boy Scouts. (fear of wood)

The scholars were exhausted after Stu Dent's lucubration. (long speech)

Her bacchanalian behavior got her arrested. (wild and drunken)

Harry's salutiferous diet keeps his cheeks rosy and his disposition sweet. (pertaining to good health)

My peccatophobia has caused me to attend church several times a day. (fear of sin)

John Dillinger's peccable personality has caused my mother to make me avoid him. (liable to sin)

When he smiled, the smoker revealed himself to be a xanthodont. (person with yellow teeth)

The xanthoderms could not use my typewriter to write in their native tongue. (people with yellow skin)

My college class has quinquennial reunions. (happening every five years)

The xylographist did a wonderful job of making the sign for the rustic restaurant. (wood engraver)

Hitler thought that through eugenics he could create a master race. (good breeding)

She thought that by becoming a xanthocroid, she would look like Marilyn Monroe. (yellow or blond haired person)

Dogs are used to detect the presence of drugs due to their oxyosphresia. (extreme sensitivity to smell)

I never learned tachygraphy, and so I can never get all of the lecture notes. (shorthand)

Because he did not masticate properly, he suffered great indigestion. (chew)

CATEGORY 2

Atilla the Hun was one rapacious fellow. (tending to take or seize from others)

The appeal of Marsha Mellow and the Mellow Fellows transcends that of ordinary rock bands. (goes beyond)

The androcracy refused to recognize the N.O.W. or pass the E.R.A. (government run by men)

Although he had been a track star in his youth, in his middle age Tim became increasingly corpulant. (fat)

Abdul got tired of peregrinating, so he sold his tent and camel and bought himself a condo. (moving from place to place)

The circumfluent river did not disrupt Hoboken's downtown traffic. (flowing around)

Once I was a cockroach; now, because of paligenesis, I am a guru. (rebirth into a higher life form)

The spectacular pyrotechnics made the crowd ooh and aah. (fireworks)

Some Mormons do not practice monogamy, unlike most other people in the U.S. (marriage to only one person)

The octogenerian looked back on her long life with great pride. (person 80 to 89 years old)

My postprandial cup of coffee went well with the delightful conversation. (after a meal)

My soliloquy echoed out across the stage. (speech made to oneself when alone)

At the transient hotel, people rarely stay for more than a few nights. (going from place to place, changing quickly)

Not knowing the proper nomenclature, I could not follow the instructions on how to operate the computer. (special names or terms)

Tom's ambulophobia led him to own several cars. (fear of walking)

The autodidact dropped out of college because she didn't need it. (self taught person)

The pachycephalic boxer did not flinch when he was punched in the face. (thick skulled)

In the movie about the Civil War, there were several anachronisms, such as cars and airplanes. (error in chronology; out of time)

My androgynous friend never has to go out on dates. (having both masculine and feminine characteristics)

I invited the gourmet over to dinner because of his oxygeusia. (extreme sensitivity to taste)

The professor's tachydidaxious style confused the scholars. (fast teaching)

My neonatal brother does nothing but cry. (newborn)

CATEGORY 3

When they impugned Fred's reputation, he was quite upset. (call into question, fight against)

The eulogy I got at my testimonial dinner brought a tear to my eye. (speech of high praise)

The dinner of Twinkies, ice cream and jalepeno peppers did not give Sarah a eupeptic feeling. (relating to good digestion)

When he said, "I depreciate your help," he committed a malaprop. (bad usage of a word)

Sean O'Malley only goes out with girls who are, like him, hirsutorufous. (red haired)

We found our stolen car, but we never found the miscreant. (wrongdoer)

I averred when George Washington confessed that he had chopped down the cherry tree. (affirmed as true)

The secret agent shot the spy with impunity. (freedom from punishment)

The primitive tribe was able to make money through practicing xyglyphy. (artistic wood carving)

Her porcine behavior caused me to think she had no manners. (pig like)

The witness' verisimilitude convinced the jury. (appearance of truth)

My professor organized a very enlightening colloquium on the Middle East. (academic meeting on a specific topic)

Our lack of a circumvallation allowed the cavalry to attack us easily. (fortification around something)

When the War Department's name was changed to the State Department, the government was using a euphemism. (substitution of an inoffensive term for an offensive one)

Jimmy Carter's bad case of arachibutyrophobia will cause him to reduce his jelly intake. (fear of peanut butter sticking to the roof of the mouth)

"I really don't think that baseball should be played as a subtequlaneous sport," said the purist. (indoor)

The substaquilated nation's citizens were immediately enslaved. (defeated)

My autotelic hobby got me happiness, but little money. (something done for its own sake)

After taking a puck to the mouth, the hockey player could not commit autophagia. (biting oneself)

My tolypeutine skin protected me when I slept on the bed of nails. (resembling an armadillo)

Her virvestitism caused her to purchase many pairs of trousers. (female preference for male clothes)

The girl who went out for the football team was thought to have viraginity (masculinity in a woman)

I could not understand Professor Szlzyvzski because he was a xenoepist. (one who speaks with a foreign accent)

CHALLENGE ROUND

We found the planiloquent style of the rural politician a welcome change from the city slickers we were used to. (straight talking)

The bibliopolist told me that his first edition copy of The Odyssey was not for sale. (rare book dealer)

The ostrich's bicrural status was threatened when it got caught in the bear trap. (having 2 legs)

In its ideal state, marriage is a biunal relationship. (combining two into one)

NEOLOGISM!

This game requires students to create their own neologisms from a list of given prefixes, roots and suffixes. Going through the process of word formation should help them in determining the meanings of unfamiliar words, in that an understanding of the relationships of word elements should precede knowledge on how to determine meaning from word elements. This game requires small groups of students to combine elements in plausible ways to create some new word for which they must invent a definition, and then has the other groups of students try to guess the made-up definition.

Procedures: The students should form teams of no more than four members, and receive copies of the game's word element list consisting of various prefixes, roots and suffixes. Each group's responsibility will be, for each round, to combine a minimum of two elements from the lists, plus, ideally, other word elements that they know from other games to form some new word, and then to write a definition for it. The definition may involve some embellishment, but should remain faithful to the elements that constitute the word. The word may have a maximum of 20 letters.

A sample round might proceed as follows: The class divides into teams consisting of 3-4 students. A typical class might have 6-8 teams. Prior to the competition, each student should receive a copy of the word element list. The game starts with each team sequestering itself and selecting at least two elements from the list to make up a new word. Since they are operating separately, several teams could conceivably end up using some of the same elements. For example, Team #1 might select words only from the Neologism! word element list, and use "ecto" (outside of), "arch" (rule, govern) and "ist" (one who) to come up with "ectoarchist," for which they might make up the definition "one who governs a nation while in exile." Team #2, however, might remember word elements from other lists, and combine "mega" (very), "tachy"

(fast), "hipp" (horse), and "ine" (resembling a certain animal) to get "megatachyhippine," or "resembling a very fast horse." One important point: You should encourage the teams to use as many of the twenty allowable letters as possible, but should limit the numbers of letters per word to twenty. This will prevent students from making up utterly ridiculous words like "macropaleopseudoichthymorphiconoclasm," for which students could make up a definition that no one could possibly guess; this makes the game more competitive, and forces students to engage more seriously in the real process of word formation, rather than just randomly stringing together countless word elements. Each team should check its word and definition with the teacher before submitting it, to make sure that the definition is reasonable, and to make sure that prefixes are used as prefixes and suffixes as suffixes; many students need some coaching in the art of word construction.

After each team has concocted its word and definition, the competition begins. Team #1 goes first, reading its word and writing it on the board, and then handing in its definition to the teacher. Each of the other teams then has two minutes to figure out the word's "meaning." They make their guesses, write them down, and turn them in to the teacher.

The teacher then reads each of the guesses. After all have been read, he or she makes a judgment as to which are correct. The guesses should be fairly close to the original in order to be acceptable. For instance, for the previously given definition for "ectoarchy," "Someone ruling a country who is outside the royal family," while a good guess, would not be acceptable, since it does not contain the key elements of the original; "A person who governs from afar," although closer, would also not be acceptable, because the key element of exile is missing.

After the teacher has read the attempts of the competing teams, he or she reads Team #1's "correct" definition, and identifies those guesses which are

acceptable as correct. Any team guessing the "correct" definition receives one point; Team #1 also receives one point for each "incorrect" guess.

Since all groups make up their words at the beginning of the game, you can proceed directly from this juncture to a reading of Team #2's neologism. Each round is structured like the first one; you may play as many rounds as time allows. At the end of the period, the team with the most points wins.

Prefix

a - without

caco - bad

ecto - outside

endo - within

epi - upon, in addition

hetero - different

hier - sacred

holo - whole

homo - same

hypo - under, less than, too little

ideo, idea - idea

idio - one's own

iso - equal

macro - large

mega - large

meta - completely, beyond

olig - few

poly - many

pseudo - false

Roots

arch, archi - rule, govern

batho, bathy - depth

cephal - head

chrom - color

crypt - hide

dem - people

derm - skin

dyn, dynam - power

ethn - nation

geo - earth

gno, gnos - know

hem - blood

hipp - horse

ichthy - fish

icon - image, idol

morph - shape

ornith - bird

phot - light

rheo - flow

stat, stas - stand, stop

theo - god

therm - heat

Suffixes

-ac - having the properties of ....

-algia, algy - pain of the ....

-clasm - destruction of ....

-cracy - government by ....

-ia - the condition that ....

-ic - someone or something which ....

-ism - the belief that ....

-ist - one who ....

-itis - inflammation of the ....

-latry - worship of ....

-lysis - loosening of ....

-machy, machia - war, fight between ....

-oid - resembling ....

-phoria - carrying or producing ....

-poly - sale of ....

-sis - the condition of ....